

## APHIDOLOGICAL GLEANINGS

(Homoptera)

F. C. HOTTES

Through the generosity and photographic skill of Dr. and Mrs. Börner I have acquired a copy of Food Plant Catalogue of the Aphididae of U.S.S.R. published in the Russian language in 1929 by the renowned aphidologist A. K. Mordvilko. From this work, I wish to call attention to the following: On page 55 he lists from Rosoideae *Neolachnus rosae* Cholodkovsky. Mordvilko's description of the genus, which is not indicated as new, is very inadequate, his remarks being limited to the end of the rostrum, and to a pigmented spot near the stigma of the wing. He further questions if *Lachnus subterraneus* Del Guercio is not a migrant of *Neolachnus rosae*. The genus *Neolachnus* is not listed by Neave in his Nomenclator Zoologicus (vols. III or V). However I have found two references to this genus, one by Judenko, who devotes almost three pages to it. His discussion is in Polish, except for about one page in English. The genus is also listed by Börner who gives the type as *rosae* Chol. Börner also indicates that this genus is a synonym of *Macuolachnus* described by Gaumont in 1920 with the same species as type. Both genera are placed as synonyms of *Lachnus* by Börner.

On page 34, *Paracerataphis tremulae* Mordv. (gen.n., sp.n.) is listed, the material having been taken on the under side of the leaves of Aspen growing in the vicinity of Vladivostok. Neither the genus or species are described in full, Mordvilko limiting his remarks to the fact that the genus is close to *Cerataphis* Lichtenstein but with 4-segmented antennae. He describes the larvae as being ash-gray. There are only two generations of virgins annually. *Paracerataphis tremulae* is said to be an anolocyclic form, having lost its primary host in the U.S.S.R. The genus *Paracerataphis* is not listed by Neave in his Nomenclator Zoologicus (vols. III or V). Neither the genus or species is recorded in the volume of the Zoological Record which covers the literature for 1929. I can find only one reference to *Paracerataphis*, that of Börner who places it as a synonym of *Doraphis*.

On page 40, *Tuberculatus multituberculatus* sp.n. is listed, this is followed by *Tuberculatus flavus* sp.n. Both species are listed from the under sides of the leaves of *Quercus cerris*; both are said to be light yellow, and the adult virgins always alate. On

page 88, *Hyalopterus skorkini* sp. n. is listed. The host is given as *Phragmites communis*. I have not been able to locate references in Aphid literature to the three species mentioned above, nor do they appear to be listed in the volumes of the Zoological Record available to me. Their status as species may be questioned.

On page 57, *Anuraphis distincta* Mordvilko is listed from *Amagdalus nana*; this species is not here listed as new, but perhaps should be. The antennal tubercles of this species are said to be longer than those of *Anuraphis persicae* Sulzer, being two and one-half to three times longer than their diameter. On page 79, *Fullawayella lonicerae* Mordvilko is listed from the floral parts of *Lonicera chrysantha*; it is not indicated as a new species, but probably should be. The antennal tubercles are described as extending more toward each other than in *Myzoides*. The radial sector is described as strongly convex, and the veins as being bordered, ("are smokily striped"). On page 91, *Brachycolus asparagi* Mordvilko is listed from *Asparagus*. This species is not described further. I have not been able to locate the three species mentioned above in Aphid literature, nor do they appear to be listed in the volumes of the Zoological Record available to me.

Hartig, in 1841, published a paper which he called, "Versuch einer Eintheilung der Pflanzenläuse (Phytophthires Burm.) nach der Flügelbildung." In it he makes curious use of the latter "m" after two previously described genera. The names thus characterized must be credited to him, despite the fact that they were still-born. He made use of the terms as follows: on page 367, "*Gattung Lachnus* m. zum Theil *Lachnus* Illiger." This is followed by a rather complete description of the genus and a listing of species, some of which are described as new. On page 368 the genus *Aphis* is described as follows: "*Aphis* m. zum Theil *Aphis* Lin. Fabr." Then follows a description of the genus and a listing of species, some of which are described as new. On page 366 the genus *Chermes* is treated in a similar manner. It is quite clear what Hartig had in mind to do, but this method was faulty.

Not being able to locate in this country a copy of an aphid paper published by Passerini in 1857, a photo copy has been made available to me by a European colleague who has access to a library rich in old and rare entomological literature. Hagen in his *Bibliotheca Entomologica*, zweiter Band, p. 31, cites this paper as follows: "Gli Afdi. Giornale i Giardini. XII. Giugno, 1857. 8.

pg. 20." Hagen however in error credits the paper to Carlo Passerini who died in March of 1857. The correct author was G. (Giovanni) Passerini, who at times also indicated his given name by the letter J.

As a rule the paper printed by Passerini in 1860 is considered to be a reprint of this 1857 paper. This is not true, and Horn and Schenkling in their *Index Litterature Entomologicae* are in error in so citing it, in band III p. 919. The photo copy supplied me is from a reprint ("estratto") which must be as rare as the original. The paper appears to deal with the biology and control of Aphids in general, and does not deal with the taxonomy of the family Aphididae, lacking the following sections: *Prospetto Dei Generi Della Famiglia Degli Afidi*, (which in the 1860 paper begins on page 27), *Indice Delle Specie Di Afidi Osservate Finora In Italia* (which in the 1860 paper begins on page 31), *Annotaciones Diagnosticae* (which in the 1860 paper begins on page 34). Other differences which have been noted, some of them very minor, such as the change of a species name, are as follows: The 1857 paper lacks one footnote and has one that the 1860 paper does not have. The references cited are not always the same, and sometimes not given at all in the 1857 paper. The content of the following pages as given in the 1860 paper differs slightly from that found on corresponding pages of the 1857 paper. Page 5 differs from page 3, page 11 differs from page 8, by having the paragraph which begins, "Non e pero" and a long footnote. Page 15 differs from page 12, as does page 16 from page 12. Page 17 and 18 differ slightly from pages 13 and 14, as do pages 19 and 20 from page 16. The 1857 paper ends on page 24 of the 1860 paper where the paragraph which begins "In onta all" starts. However the 1860 paper lacks the footnote at the end of the 1857 paper. It will be noted that the 1860 paper has material on pages 24, 25 and 26 which the 1857 paper does not have.

The 1860 paper by Passerini is best known in its reprint form. I do not know of an original copy in America, the Journal in which it was printed is extremely rare.

Aphid workers who have followed Wilson and Theobald in their determination of *Cinara pini* (L.) have been perpetuating their error. The species they determined as *Cinara pini* (L.) should be called *Cinara pinea* (Mordvilko), a species frequently referred to as *Cinara pineti* (Koch).



Koch in his work listed and described a species which he had misidentified as *Lachnus pineti* (Fabricius). Article 31 of the Code states that a trivial name based upon a misidentification cannot be accepted as an available name for the species in question. There is in fact no such name as *Lachnus pineti* Koch, all that there is, is Koch's misidentification of *Lachnus pineti* (Fabricius). The true *Cinara pini* (L.) which occurs in England was apparently not treated by Theobald, in his Monograph. It may be quickly separated from *Cinara pinea* by the presence of a median mesosternal tubercle. I have not seen material of *C. pini* (L.) from America, it is the species Mordvilko called *Lachnus nudus* DeGeer.

One page 3 of what appears to be an addendum following page 236 of Mordvilko's vol. 1, "Insects Hemipteres, Fauna De La Russie," Mordvilko indicates and may describe the genus *Chaitosiphon* as new. A genus by that spelling has not been recorded. However on page 71 of the same work Mordvilko describes as new the genus *Chaetosiphon*. Mordvilko mentions no type in connection with either name, and if *Chaitosiphon* is not a misspelling of *Chaetosiphon* the two genera would appear to have the following status: Börner has set the type of *Chaetosiphon* as *Capitophorus chaetosiphon* Nevsky not described until 1928, *Chaitosiphon* has not been recognized and may be a nomen nudum.

In his 1860 paper Passerini published as new *Siphonophora lactucae*. Koch had in 1855 misidentified a species which he described and called *Siphonophora lactucae*. Koch credited the species to Fabricius. Lambers has considered the *lactucae* described by Passerini as a homonym of the species described by Koch and has credited the species to him. There seems to be some question as to just what species Koch called *lactucae*, most likely he had the *sonchi* of Linnaeus, as indicated by Theobald. The species cannot be credited to Koch, all that we have is Koch's misidentified *Siphonophora lactucae* (Fabricius). Hence the name Passerini proposed has priority over *Acyrtosiphon (Lactucobium) scariolae* Nevsky, 1929.

Recently the late Dr. L. P. Wehrle and I described as new *Aphis piutapa*. At that time I had not seen specimens of *Aphis tetrapteralis* Cockerell. Since that time I have seen the type of *tetrapteralis* and additional specimens determined as such by Professor Palmer, and many additional specimens sent to me unidentified from Arizona. Despite differences which may be noted in

published descriptions the two species appear to be the same, the shape of the cauda being very variable in *tetrapteralis* as well as the number of sensoria on the third antennal segment. Dr. Dickson has sent me material of the species described by him as *Pergandeida cahuille*; it also appears to be a synonym of *Aphis tetrapteralis*.

In a letter sent to Réaumur in 1748, DeGeer, records some of his observations made in 1745. These were published in 1755 under the title, "Secondes Observations, sur les Pucerons du prunier, et en particulier sur leur accouplement," in the second volume, *Mémoires de Mathématique et de Physique*, pp. 469–473, pl. XVII. I am not aware of a reference to this paper in aphid literature, either economic or taxonomic. DeGeer does not mention it in his work published in 1773. It seems well that attention be called to this paper so that it may be added to the extensive bibliography of *Hyalopterus pruni* (Goeffroy).

In a paper called "Aphid homonyms" which I published in 1930, I gave the name *Hyadaphis mellifera* to the species Schrank in 1801 had called *Aphis xylostei*, which was a homonym. At that time I was not aware of some of the information herewith presented, some of which was not yet in print. In view of the fact that Kirkaldy made *Aphis xylostei* Schrank type of the genus *Hyadaphis* which he described in 1904, it seems important to call attention to the synonymy of this species despite the fact that I am not now in a position to determine the specific name that must hereafter apply to the species described by Schrank.

*Aphis xylostei* Schrank, 1801, a homonym.

*Aphis sii* Koch, 1855. This species was placed as a synonym of the above species by Börner and Schilder in 1932. Koch placed the species described by Schrank in the genus *Rhopalosiphum*. Despite placing the species *sii* and *xylostei* in different genera, Koch's descriptions have much in common. This synonymy was followed by Dr. Lambers in 1934. Kloet and Hincks in their Check List of British Insects 1945 use this name.

*Siphocoryne foeniculi* Passerini, 1860. In a copy of Sorauer, Handbuch der Pflanzenkrankheiten, corrected by Dr. Börner and sent to me in 1949, Dr. Börner has replaced *Hyadaphis sii* (Koch) by *Hyadaphis foeniculi* (Passerini), on what grounds I do not know.

*Hyadaphis hyadaphis* Kirkaldy, 1905. Kirkaldy proposed this name to replace the name *xylostei* Schrank. It appears to have been overlooked by aphid taxonomists.

*Hyadaphis conii* (Davidson), 1909. Davidson placed the species *conii* described by him as a synonym of *xylostei* in 1914.

*Hyadaphis coniellum* Theobald, 1925. This species was placed as a synonym of the species described by Schrank by Lambers in 1934.

*Hyadaphis mellijera* Hottes, 1930.

*Hyadaphis schranki* Lambers, 1931.

In a paper called "The evolution of cycles and the origin of heteroecy (migrations) in plant lice," Mordvilko in 1928 proposed the name *Drepanosiphum californicum* for *D. platanoides* Wilson, 1909. This name seems to have been overlooked. I do not find it in the volumes of the Zoological Record available to me. It is not listed in the Food Plant Catalogue of Aphids by Dr. Patch. Wilson described the oviparous females as being alate. This is not true for *Drepanosiphum platanoides* Schrank, under which Wilson described this species.

In the issue of the Zoologischer Anzeiger for March 11, 1895, Mordvilko described by means of a key to the genus *Lachnus*, several species which he indicated as new. As a rule these species are said to have been described by him in: Raboty iz Laboratorii Zoologicheskago Kabineta I. Varshavskago Universiteta, 1895. For some time, I have concerned myself with the problem of which paper has priority. In the course of doing this I have experienced great difficulty due to the extreme rarity of the periodical in which the paper was published. However, I can now report that the paper was not originally published in Raboty iz Laboratorii Zoologicheskago Kabineta Varshavskago Universiteta, which has been translated for me as "Contributions of the Laboratory of the Zoological Department of the Imperial University of Warsaw," but in Warsaw Universitet Izviestiià. The title of this paper is rarely given; Cholodkovsky cites it in Russian; Dr. Patch cites it in her Food Plant Catalogue as follows: K faunie i anatomii sem'[i] Aphididae Privislinskago Karaià. The title is given in Annals of the Entomological Society of America, vol. XXXIII, p. 490 as, "On the Fauna and Anatomy of the Family Aphididae of the Visla Region"; here however the pages are cited incorrectly.

As printed and bound in the copy of Izviestiià now in the Library of Congress, which by the way is the only complete volume of the year 1894-95 I have been able to locate, the paper is divided into parts, no. 6: 1-16; no. 7: 17-48; no. 8: 49-80; no. 9: 81-112; issued on the following dates: no. 6: Sept. 30, 1894, no. 7: Oct. 31, 1894, no. 8: Nov. 30, 1894, no. 9: Dec. 31, 1894. No. 1: 113-136; no. 2: 137-168; no. 3: 169-184; no. 4: 185-200; no. 5: 201-224; no. 6: 225-256; no. 7: 257-274, issued as follows: no. 1: Jan. 31,

1895, no. 2: Feb. 28, 1895, no. 3: Mar. 28, 1895, no. 4: Apr. 30, 1895, no. 5: May 31, 1895, no. 6: Sept. 30, 1895, no. 7: Oct. 31, 1895. The new species were described in Part I, 1895 and date from Jan. 31. They were described on the following pages *L. bogdanowi* n.sp. p. 115–118, *L. pinihabitans* n.sp. 118–119, *L. nudus* DeGeer p. 119–124, *L. pineus* mihi=*L. pineti* Koch, p. 126–130, *L. flavus* n.sp. 133–134, *L. juniperinus* n.sp. p. 134–136. *L. pichtae* n.sp. was not described except in the key on page 104 of part nine issued in 1894 and hence should carry that date. All species now belong in the genus *Cinara*. The copy of this paper in the Library of the British Museum of Natural History, which appears to be a reprint, has the text continuous from start to finish, with no indications of divisions into parts and with no reference to dates other than on the title page, 1894 –go doda. “(i.e. of the year 1894.)” and the publishers name and date 1894-95. This copy also has the title page “Raboty iz laboratorii Zoologicheskago Kabineta Imperatorskago Warshawskago Universiteta.” Thus we seem to have evidence that the paper was printed twice, once in *Izvestiia*, and once in the *Raboty* series, a series which to some extent might be called parasitical. As printed in *Izvestiia* and in *Raboty* the pages were numbered the same. Mordvilko appears to have published other of his papers twice; I know of several such, but in these the pages are not the same.

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## CUTEREBRA LATIFRONS REARED FROM NEOTOMA FUSCIPES MACROTIS

(Diptera: Cuterebridae)

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On April 16, 1952, a young wood rat, *Neotoma fuscipes macrotis* Thomas, was captured and brought to the laboratory alive. The collection was made in San Timoteo Canyon, Riverside County, California at a point eleven miles southeast of Redlands. When captured, the young rat was found to be parasitized by four warbles. Three were located on the ventral aspect of the neck and shoulders, one on the postero-superior aspect of the hind leg. The animal was reared, as described below. Three larvae pupated April 27, 29 and 30. On April 30 the animal was anesthetized and the fourth warble excised; this specimen was preserved in 75% alcohol. Adult cuterebrids emerged as follows: one male on June 3, the two females on August 15 and September 5.

*Rearing Technique*—Immediately after capture, the young rat was placed in an Army Medical School Model rat cage (fig. 1). The bottom tray was covered with moist sand to a depth of one inch. As the larvae matured and left the animal, they fell through